



Figure.

No ABO-I).

Conclusion: In this large study of mostly myeloablative, T-cell deplete, allogeneic transplant patients the presence of donor vs recipient Minor ABO-I did not significantly impact critical long term outcomes.

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Impact of Daptomycin Minimum Inhibitory Concentration (MIC) on Outcomes of Patients with Hematologic Malignancies and Hematopoietic Stem Cell Transplant (HSCT) Recipients with Vancomycin-Resistant Enterococci (VRE) Bloodstream Infection (BSI)

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Background: VRE is a common cause of BSI and daptomycin is often used as first-line therapy. The Clinical and Laboratory Standards Institute (CLSI) defines VRE isolates with daptomycin MIC (D-MIC) of ≤ 4 mg/L as susceptible. Clinical significance and treatment outcomes of VRE BSI episodes with D-MIC of 4, compared to those with D-MIC of 2 is currently undefined.

Patients and Methods: A single-center retrospective chart review of adults with hematologic malignancies and HSCT (autologous and allogeneic) recipients diagnosed with VRE BSI between September 2006 and September 2014 was performed. D-MICs were determined using Etest and VRE isolates with MICs < 2 or > 4 were excluded from the study. Only the first VRE BSI episode per patient was included.

Results: 53 BSI episodes were identified in 59 patients (27 allogeneic and 3 autologous HSCT; 29 with hematologic malignancies); of which 47.2% (25 of 53) and 52.8% (28 of 53) were due to isolates with D-MICs of 4 and 2 respectively. The median duration of bacteremia (4 versus 3 days; $p = 0.20$), median duration of neutropenia (15 vs. 17 days; $p = 0.78$), and Pitt Bacteremia Score ($p = 0.51$) did not differ significantly between patients with VRE BSI due to D-MICs of 4 and 2. The all-cause 30-day mortality after onset of BSI was 44.4% (D-MIC: 4) vs. 55.6% (D-MIC: 2) in HSCT recipients and 33.3% (D-MIC: 4) vs. 55.6% (D-MIC: 2) in patients with hematologic malignancies. 100% of the episodes were due to *Enterococcus*

faecium, with central venous catheters identified as the most common source of BSI. Daptomycin monotherapy was the most common treatment choice, used in 80% (47 of 59) of the BSI episodes.

Conclusion: The all-cause 30-day mortality, duration and severity of bacteremia did not appear to be different between VRE BSI episodes with D-MICs of 4 versus 2 in HSCT recipients and patients with hematologic malignancies.

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Alpha/Beta T-cell Depleted Allogeneic Stem Cell Transplantation from Matched Related and Unrelated Donor Grafts in Patients with Poor Risk Leukemia

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Introduction: The outcome of allo-SCT in patients with poor risk leukemia is still hampered by GVHD and relapse. The innate immune system has been reported to contribute to tumor control, with lower incidence of GVHD. Specific depletion of $\alpha\beta$ T-cells – key players in the development of GVHD – will render NK cells and gd T cells within the allograft. Recently reported results have shown the great promise of this approach in haploidentical transplantations. Within this study, we aim to extend $\alpha\beta$ T-cell depleted allo-SCT to patients with a MRD or MUD.

Methods: Patients with either 'poor-risk' or 'very poor-risk' leukemia were included in this phase I study. Either HLA matched siblings (MRD) or HLA matched (9 or 10/10) unrelated donors (MUD) were eligible. abT-cell reduction was performed by negative selection with anti-abTCR antibodies in combination with magnetic microbeads, using the automated CliniMACS device (Miltenyi Biotec, Bergisch Gladbach, Germany). The maximal contamination with abT-cells for all dose levels was 5×10^5 /kg. The conditioning regimen consisted of: ATG (Genzyme®) 4 or 6 mg/m² + fludarabine 120 mg/m² + busilvex AUC=90 followed by $\alpha\beta$ T-cell depleted grafts from matched related or unrelated donors. No additional immune suppression was given after allo-SCT.

Results: Products for 15 patients have been successfully processed and used for $\alpha\beta$ T-cell depleted allo-SCT between 2013 and 2014. A ~ 4 log depletion of $\alpha\beta$ T-cells has been observed in the product with a recovery of $\sim 75\%$ of CD34⁺ cells. The combination of ATG/fludarabine/busilvex was well tolerated with a hematological recovery within 3 weeks. Primary engraftment (chimerism $> 95\%$) was observed in all patients. Immune reconstitution primarily consisted of innate cells (NK cells and gd T cells) the first 6 months post